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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,383	02/23/2005	Takeshi Minoda	1155-0281PUS1	5588

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EXAMINER	
CHEN, VIVIAN	

ART UNIT	PAPER NUMBER
1773	

NOTIFICATION DATE	DELIVERY MODE
10/04/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/525,383	MINODA ET AL.	
	Examiner	Art Unit	
	Vivian Chen	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over:

JP 2003-138165 (JP '165),

in view of JP 08-034860 (JP '860).

JP '165 discloses a molded polyolefin substrate coated with a coating composition comprising components (a), (b), (c), (d) as recited in claim 1, wherein the polyolefin substrate comprises a polypropylene blend composition comprising polypropylene, at least one other resin (e.g., EPDM, EPR, thermoplastic elastomers, etc.) and filler, wherein the curable coating is applied to the substrate and cured via in-mold coating. (JP '165, entire document, e.g., Abstract; paragraphs 5-6, 17, 22-23, 26, 29, 35-36, 39, 41, 43, 45-46, etc.) However, the reference does not explicitly disclose the recited hydroxyl-group containing polypropylene composition.

JP '860 discloses that it is well known in art to use polypropylene molding compositions comprising a 10-99.9 parts by weight (pbw) hydroxyl-group containing polypropylene containing a hydroxyl content less than 50 meq/g, 0.1-90 pbw olefin-based elastomer (e.g.,

ethylene-α-olefin copolymers), and optionally up to 500 pbw of an additional polymer component and up to 40 wt% filler (e.g., inorganic fibers, etc.), in order to improve the coatability of molded polyolefin substrates. (JP '860, entire document, e.g., paragraphs 7, 9, 21-22, 31-33, etc.)

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize a polypropylene molding composition with enhanced coating properties as disclosed in JP '860 as the substrate for the coated articles as disclosed in JP '165 in order to improve intercomponent adhesion.

3. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over:

JP 2003-138165 (JP '165), in view of JP 08-034860 (JP '860).

as applied to claim 1 above,

and further in view of STRAUS ET AL (US 6,617,033),

and in view of YOMEMOCHI ET AL (US 6,180,043) or EP 0 934 808 (EP '808).

STRAUS ET AL discloses that it is well known in the art to apply a curable in-mold coating to a thermoplastic substrate in a two-part mold as recited in claims 7-9, wherein the method comprises a filling stage comprising injecting molten thermoplastic composition having a typical initial melt temperature of 400-500°F into a mold having a typical mold temperature of 200-250°F at a first injection pressure, followed by a packing stage comprising increasing the injection pressure, followed by a cooling stage, followed by partial opening of the mold, injection of a fluent coating composition having a typical curing temperature of 200-330°F,

reclosing and increasing the clamping pressure on the mold to cure the coating on the substrate. (entire document, e.g., Figure 1; line 18, col. 10 to line 6, col. 11; line 15-19, col. 12; etc.)

YOMEMOCHI ET AL '043 and JP '808 disclose that it is well known in the art to allow a molded substrate to cool and solidify sufficiently to withstand the injection of the fluent coating composition prior to the injection of a fluent coating composition, followed by reclosing and increasing the clamping pressure on the mold to cure the coating on the substrate. (Abstract; line 24-45, col. 3; line 31-40, col. 4)

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize known in-mold coating methods to apply the coatings of JP '165 to polypropylene in order to produce a coated article with improved intercomponent adhesion. Since the clamping pressure must counteract the injection pressure in order to hold the mold closed, an increase in injection pressure (e.g., during the packing stage) requires a corresponding increase in clamping pressure. It is conventional to set the mold temperature below the melting point of the molding resin in order to allow solidification of thermoplastic resins. One of ordinary skill in the art would have set the mold temperature above the curing temperature of the coating composition in order to allow adequate curing and solidification of the coating composition. It would have been obvious to use conventional molding techniques (e.g., degassing the mold via an controlled opening, etc.) (claim 9) in order to facilitate thorough filling of the mold and improve the surface finish of the molded article.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (571) 272-1506. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

The General Information telephone number for Technology Center 1700 is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 27, 2007

Vivian Chen
Primary Examiner
Art Unit 1773